UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,217	10/15/2003	Issei Yoshida	JP920020132US1	9470

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2008*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10 and 14-16* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10 and 14-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Remarks

1.   In response to communications filed on 9 September 2008, claims 10 and 14 are

amended, claims 11-13 are cancelled. Claims 10 and 14-16 are pending in the

application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claims 10 and 14-16 are rejected under 35 U.S.C. 101 because the claims are

method claims that are not tied to any particular machine. A claimed process is patent-

eligible under § 101 if it is tied to a particular machine or apparatus or it transforms a

particular article into a different state or thing. Neither a particular machine or a

transformation into a different state or thing is present in the claims.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Kephart</u> <u>et al</u>. (US Patent 5,675,711), in view of <u>Nakano et al</u>. (US Patent 7,010,515), further in view of <u>Getchius et al</u>. (US Patent 6,393,415), further in view of <u>Li et al</u>. (US Patent 6,094,653).

        As to claim 10, <u>Kephart et al</u>. teaches:

        generating a word list for each of at least two categories by extracting words from a learning document set (see 6:20-28 and 9:18-40), the word list containing information on a frequency of appearance of each extracted word within each category (see 6:20-28 and 9:18-40)

        <u>Kephart et al</u>. as modified does not teach:

        and a part of speech corresponding to each word;

        <u>Nakano et al</u>. teaches:

        and a part of speech corresponding to each word (see 4:48-59 and Figure 4);

        <u>Kephart et al</u>. as modified teaches:

        filtering the word list to determine the words that are identified as a particular part of speech (see <u>Nakano et al</u>. 4:48-59);

        determining an unnecessary word for a first category on the basis of the number of occurrences of the word within at least one other category wherein a word is determined to be unnecessary in the first category in response to the word having a greater number of occurrences than a given standard in one other category, a distinct

given standard defined for each category, the given standard defined irrespective of the

number of occurrences of the word in the first category (see Kephart et al. 5:36-55); and

Kephart et al. does not teach:

the given standard defined as the product of the number of documents in a

corresponding category and a predefined threshold value;

Getchius et al. teaches:

the given standard defined as the product of the number of documents in a

corresponding category and a predefined threshold value (see 65:5-16. Category weight

can be determined by number of listings in a category multiplied by 1 / total number of

listings);

Kephart et al. as modified teaches:

generating a document classification catalog by eliminating words determined to

be unnecessary words from each of the word lists (see Kephart et al. 5:17-20 and 5:36-

55)

Kephart et al. as modified does not teach:

the document classification catalog comprised of a plurality of vector space

wherein each vector space represents at least one category, each vector space

comprising the number of occurrences of the remaining words in the word list of a

corresponding category;

Li et al. teaches:

the document classification catalog comprised of a plurality of vector space

wherein each vector space represents at least one category, each vector space

comprising the number of occurrences of the remaining words in the word list of a

corresponding category (see 1:25-36 and 6:45-60);

Kephart et al. as modified teaches:

receiving a target classification document and generating a document vector for

the target classification document, wherein a distance is defined between the document

vector and each of the plurality of vector spaces such that the distance indicates a

degree of similarity between the target classification document and a category

represented by the vector spaces (see Li et al. 1:25-36 and 9:48-63);

identifying the category corresponding to the vector space with the least distance

between the vector space and the document vector (see Li et al. 1:25-36 and 9:48-63);

and

assigning the target classification document to the category (see Li et al. 1:25-36

and 9:48-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Kephart et al. by the teachings of Nakano

et al., since Nakano et al. teaches that "to allow a calculation of similarity and

discrepancy in which there are clear differences in accordance with the content of the

texts" (see 1:41-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Kephart et al. by the teachings of

Getchius et al., since Getchius et al. teaches that "statistics may be further improved by

weighting other factors" in references to matching advertisements to a document. This

permits "improved tuning of search queries" (see 65:1-25). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to have extended

these teachings to create a standard based on the product of the number of documents

in a corresponding category and a predefined threshold value, as such calculations for

weighting were known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Kephart et al. by the teachings of Li et al.,

since Li et al. teaches "to provide a novel document classification system and method

which are capable of highly accurate document classifications" (see 4:56-68).

6.   Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kephart et al. (US Patent 5,675,711), in view of Nakano et al. (US Patent 7,010,515),

further in view of Getchius et al. (US Patent 6,393,415),

As to claim 14, Kephart et al. as teaches:

acquiring information on words from a document set, classifying the words

according to category, and storing the words in a storage device (see Kephart et al.

5:17-20 and 5:36-55)

Kephart et al. does not teach filtering the words to eliminate the words that are

identified as a particular part of speech;

Nakano et al. teaches filtering the words to eliminate the words that are identified

as a particular part of speech;

Kephart et al. as modified teaches

recognizing the number of occurrences within at least one other category of a

word belonging to a given category on the basis of the acquired information (see

Kephart et al. 5:17-20 and 5:36-55);

determining an unnecessary word for a first category on the basis of the number

of occurrences of the word within at least one other category wherein a word is

determined to be unnecessary in the first category in response to the word having a

greater number of occurrences than a given standard in one other category, a distinct

given standard defined for each category, the given standard defined irrespective of the

number of occurrences of the word in the first category (see Kephart et al. 5:36-55)

Kephart et al. does not teach the given standard defined as the product of the

number of documents in a corresponding category and a predefined threshold value;

Getchius et al. teaches the given standard defined as the product of the number

of documents in a corresponding category and a predefined threshold value (see 65:5-

16. Category weight can be determined by number of listings in a category multiplied by

1 / total number of listings);

Kephart et al. as modified teaches:

generating a document classification catalog by eliminating words determined to

be unnecessary words (see Kephart et al. 5:36-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Kephart et al. by the teachings of Nakano

et al., since Nakano et al. teaches that "to allow a calculation of similarity and

discrepancy in which there are clear differences in accordance with the content of the

texts" (see 1:41-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Kephart et al. by the teachings of

Getchius et al., since Getchius et al. teaches that "statistics may be further improved by

weighting other factors" in references to matching advertisements to a document. This

permits "improved tuning of search queries" (see 65:1-25). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to have extended

these teachings to create a standard based on the product of the number of documents

in a corresponding category and a predefined threshold value, as such calculations for

weighting were known in the art.

As to claim 15, Kephart et al. teaches further comprising storing said

classification catalog into the storage device (see Kephart et al. 5:17-20 and 5:36-55).

As to claim 16, Kephart et al. teaches further comprising the step of performing

classification processing for classification target documents by using the classification

catalog stored in said storage device (see Kephart et al. 5:17-20 and 5:36-55).

Response to Arguments

7.   Applicant's arguments with respect to the claims have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES D. ADAMS whose telephone number is (571)272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. A./
Examiner, Art Unit 2164

/Charles Rones/
Supervisory Patent Examiner, Art Unit 2164